

ABSTRACT

An ergonomic apparatus for generating data signals that may be indicative of alphanumeric characters for use with an electronic device or system such as a computer or electric typewriter, for example. The apparatus may be configured in accordance with ergonomic principles and use one or two hands to generate the data signals. The apparatus may include a set of domes that are shaped and contoured to conform to the shape of hands in a relaxed state and to distribute pressures across the splayed underside of the user's hand. Each dome may be capable of movement in a plurality of directions extending radially from a home position to generate the data signal or a portion of the data signal. The two-handed implementation disclosed utilizes input movements that enable keystroke actuation via only slight arm or hand movement, no finger movement being required. A keyboard layout may be used with the domes to associate movement of each dome with an alphanumeric layout of characters on a conventional keyboard such as a QWERTY keyboard layout. Dome movement may also be associated with the relative location of alphanumeric characters on an associated keyboard and the respective relative frequency of use of an alphanumeric character to be produced. Hand-held embodiments of the apparatus are provided that may be used with portable or other similar electronic devices.